CLAIMS:

1.   A method of processing a serial data signal to generate a corresponding transformed signal, the method including the steps of:

(a)   providing one or more signature sequences;

(b)   analysing the serial data signal to determine therein one or more signal
5   sequences for which holds that combining such one or more signal sequences with said one or more signature sequences does not result in generation of illegal states; and

(c)   combining one or more of the determined signal sequences of the serial data signal with said one or more signature sequences so as to transform the serial data signal into the transformed signal.

10

2.   A method according to Claim 1, wherein the serial data signal is a 1-bit data signal in binary format, and the one or more signature sequences are arranged to be directly combinable with the serial data signal to generate the transformed signal in binary format, preferably such combination involving addition and/or subtraction and/or exclusive-OR

15   operations.

3.   A method according to Claim 1, wherein the serial data signal is arranged such that its series of symbols have substantially similar significance.

20   4.   A method according to Claim 1, wherein the one or more signature sequences are useable to reversibly transform the transformed signal to regenerate a copy of the serial data signal therefrom.

5.   A method according to Claim 1, wherein a plurality of signature sequences is
25   employed in the method.

6.   A method according to Claim 5, arranged in operation to switch dynamically between the sequences when transforming the serial data signal into the transformed signal.

24

7.   A method according to Claim 1, wherein the one or more signature sequences are each two or more symbols long.

8.   A method according to Claim 1, wherein the one or more signal sequences for which holds that combining such one or more signal sequences with said one or more signature sequences does not result in generation of illegal states are selected according to a perceptual model to obtain a preferred perceived characteristic in the transformed signal.

9.   A method according to Claim 1, wherein the serial data signal and the transformed signal are 1-bit audio signals, and the combination of the one or more signature sequences is performed directly on the serial data signal without transforming to another signal format.

10.   A method according to Claim 1, arranged to embed a watermark in the serial data signal so that the transformed signal is a watermarked version of the serial data signal.

11.   An apparatus (100) for implementing the method according to Claim 1, the apparatus being arranged to receive the serial data signal and output the transformed data.

12.   Transformed data generated using the method according to Claim 1.

13.   A data carrier including stored thereon transformed data according to Claim 12.

14.   Computer software operable when executed on a computing device to implement the method according to Claim 1.

15.   A method of processing a transformed signal to regenerate a corresponding decoded serial data signal, the method including the steps of:

(a)   providing one or more signature sequences;

(b)   analysing the transformed signal to determine therein one or more signal sequences for which holds that combining such one or more signal sequences with said one or more signature sequences does not result in generation of illegal states; and

(c)   combining one or more of the determined signal sequences of the transformed signal with said one or more signature sequences so as to transform the transformed signal to regenerate therefrom the decoded serial data signal.

5   16.   An apparatus for implementing the method according to Claim 15, the apparatus being operable to receive the transformed data signal and output the decoded serial data signal data.

        17.   Computer software operable when executed on a computing device to
10   implement the method according to Claim 15.